



**TSE-OK, L.L.C.**

July 1, 2013

## **Product information**

### **OK 2000 – AST # 931**

**OK 2000 – AST # 931** is a permanent anti-static / static reduced UHMW-PE polymer. This material is used for applications in which static electricity build up is not desired. The additive type and quantity used meets the cleanliness class FDA 178.3297 for “Food industry applications”.

**Properties:**                    anti-static / static reduced properties  
   noise level reduction  
   excellent wear resistance  
   FDA - Compliant (21 CFR 178.3297)

**Color:**                        Black            # 931

**Application fields:**    Conveyor industry  
   Mining industry  
   Machine construction  
   Electronic equipment  
   Pump industry

The above data are based on the present knowledge and are given without guarantee.  
Existing laws and conditions are to be respected by the user of our products.

**TSE-OK, L.L.C.**

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## Physical Properties Data Sheet

### OK 2000 – AST # 931

(UHMW – PE)

Characteristics and standard values

Physical Properties	Method	SI Unit	SI Value
Density	ASTM D792 ISO 1183-1	g/cc g/cm <sup>3</sup>	> 0.94 > 0.94
Abrasion (Sand-Slurry-Test rel. to GUR 4120 = 100%)	ISO 15527	% (Average)	100 (± 10%)
Notched impact strength	ISO 11542-2	mJ/mm <sup>2</sup> kJ/m <sup>2</sup>	> 100
Tensile strength, yield	ASTM D638 ISO 527-2	psi MPa	> 2610 > 18
Break elongation	ASTM D638 ISO 527-2	% %	> 200 > 50
Creep properties under varying compressive stress : Creep <10%	max.	psi MPa	1450 10
Coefficient of friction, ASTM 1894 metal= Rz 2,5 μ, Pm= 2 N/mm <sup>2</sup> , V= 150 mm/min	Static Dynamic	μ μ	0.17 0.12
Shore-hardness, 3-s-value 6mm plate	ASTM D2240 ISO 868 / DIN 53505	D D	63 63
Water absorption	---	%	< 0.1 (Nil)
Flammability	UL 94	---	HB
<b>Thermal Properties</b>			
Melt temperature	ASTM 3417 (DSC) ISO 3146 (DSC)	°F °C	275 – 278 135 – 137
Permanent operation temp., max.	---	°F °C	176 80
Coefficient of linear expansion	ASTM D696 DIN 53752	73 – 176 °F 23 – 80°C	≈ 1.1x10 <sup>-4</sup> /°F ≈ 2.0x10 <sup>-4</sup> /°C
<b>Electrical Properties</b>			
Surface resistivity	ASTM D257 IEC 93	Ohm Ω	< 10 <sup>9</sup> < 10 <sup>9</sup>
Volume resistivity	ASTM D257 IEC 93	Ohm Ω	< 10 <sup>6</sup> < 10 <sup>6</sup>

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